

Gregory M. Kudray Ph.D.

*Montana Natural Heritage Program
1515 East Sixth Avenue
Helena, MT 59620
Phone: (406) 444-0915
E-mail: gkudray@mt.gov*

Education

Doctor of Philosophy, Forest Science, School of Forest Resources and Environmental Science, Michigan Technological University, Houghton, MI, 1999

- Research project involved the development of an ecosystem classification system for the wetlands of the Hiawatha National Forest
- Attended University of Michigan Biological Station during the 1991 summer session with field classes in bryology and aquatic plants
- Other areas of specialization include soil science, forest and landscape ecology, vegetation science, bryophyte ecology, statistics, and remote sensing/GIS applications in land management. Overall GPA of 4.0.

Master of Science, Forestry, Michigan State University, East Lansing, MI 1979

Masters thesis was an evaluation of a spruce hybrid breeding program. Work as a research assistant included controlled pollinations, greenhouse propagation, and plantation establishment. Overall GPA of 3.6.

Bachelor of Science, Forestry, Michigan State University, East Lansing, Michigan. 1976

Graduated with high honor including Honors College membership. Minor in Botany. Overall GPA of 3.8

Teaching Experience

Ecological Inventory and Analysis, www.ecologyusa.com, Chassell, MI

- Classroom and field presentation of *Traditionally Used Plants of the Great Lakes Ojibwa* workshop. Sponsored by the Keweenaw Bay Indian Community for their employees and biologists from regional tribes
- Presented workshop on *Wetlands Plants and Communities*. Sponsored by the Keweenaw Bay Indian Community for their employees and biologists from regional tribes. 2000

Michigan Technological University, Research Scientist, School of Forest Resources and Environmental Science. Houghton, MI, 1994 – 1996

- Instructor in the 1994 Wetland Ecology course (FW 451)
- Presented a 2 day Forest Service Clear Lake Conference *Wetlands Plants and Communities* workshop for regional professionals
- Instructor in a Forest Service silvicultural certification workshop offered by our department

Work Experience

Montana Natural Heritage Program, Helena MT, Senior Ecologist, April 2003 to present

- Ecology program and project management responsibilities
- Supervise up to 4 ecologists
- Ongoing projects include:
 - Wetland Mapping, Status and Trends of Three Large Developing River Valleys in Montana
 - Yellowstone River Wetland/Riparian Change Detection Pilot Study
 - Middle Powder River Watershed Assessment.
 - Sagebrush Succession in Southeastern Montana
 - GAP Vegetation and Mapping Support for Montana

- My completed project reports are available at www.mtnhp.org and include:
 - Crowe, E.A. and G. M. Kudray. 2003. *Wetland Assessment of the Whitewater Watershed*.
 - Kudray, G.M, P. Hendricks. 2004. *Riparian Forest of the Wild and Scenic Missouri River: Ecology and Management*.
 - Lesica, P., S.V. Cooper, and G.M. Kudray. 2005. *Big Sagebrush Shrub-steppe Postfire Succession in Southwest Montana*.
 - Kudray, G.M. and S.V. Cooper. 2005. *Linking the National Vegetation Classification System to NRCS Ecological Sites in Southeastern Montana*.
 - Cooper, S.V., G.M. Kudray, P. Hendricks, B.A. Maxell, W. M. Jones, C. Currier, and S. Lenard. 2005. *Inventory of Plants, Plant Communities and Herpetofauna of Concern in the Vicinity of the Snow-Talon Burn, Helena National Forest*.
 - Kudray, G.M. and S.V. Cooper. 2006. *Montana's Rocky Mountain Front: Vegetation Map and Type Descriptions*.
 - Kudray, G.M. 2006. *Montana's Centennial Valley: Land Cover Map*. No report available.
- Presentations given include:
 - *Ecological Classification and Mapping of Wetlands*. 2003. Montana Wetland Council.
 - *Watershed and Wetlands: Integrating Site and Landscape Scale Assessments*. 2004. Montana Wetland Monitoring and Assessment Meeting and BLM State Biologist Meeting.
 - *Invasive Species – What Are We Doing and Where Should We Go?* 2005. Western Regional Natural Heritage Conference.
 - *A Vegetation Index of Biotic Integrity for Small-Order Streams in Southwestern Montana*. 2005. EPA Region VIII Wetland Monitoring and Assessment Workshop.
 - *GAP Vegetation Mapping for Zone 20 (Eastern Montana)*. 2006. Intermountain GIS Conference.

Ecological Inventory and Analysis, Chassell MI, 1998 to 2003

I established this company to do consulting work for individuals, corporations, and government agencies. Up to six seasonal personnel employed. Contracts have included:

- *Hiawatha National Forest*, A "Field Guide to Ecosystem Types of the Hiawatha National Forest", ecosystem mapping and inventory (total to date is over 300,000 acres), training of Forest Service personnel.
- *Forest Service North Central Region*, Conservation assessments for several rare *Botrychium* ferns.
- *US Corps of Engineers*, Aquatic vegetation inventory for invasive species.
- *US Geological Service*, Wetland vegetation monitoring in the Seney National Wildlife Refuge
- *Michigan Technological University*, Bryophyte and vascular plant identification
- *Keweenaw Bay Indian Community*, A "Field Guide to Traditionally Used Plants of the Keweenaw Bay Indian Community", invasive plant inventory and mapping, training workshops on wetlands and traditional plants.
- *Great Lakes Indian Fish and Wildlife Commission*, Aquatic vegetation inventory
- *Keweenaw Land Trust*, Baseline documentation for conservation easements, nature trail design

Michigan Technological University, Research Scientist, School of Forest Resources and Environmental Science. Houghton, MI, 1994 – 1996

Primarily focused on the Hiawatha National Forest ecosystem mapping and inventory project. Provided training and technical support for USDA Forest Service and USDA Natural Resources Conservation Service employees. Trained and supervised a seasonal crew of biologists (8 in 1996, 9 in 1995, 3 in 1994) to conduct field mapping integrating vegetation, soil, and hydrological data.

Michigan Department of Natural Resources, Assistant Area Forester, Forest Management Division, Baraga Field Office. 1984 – 1990

Responsible for the operations inventory and timber sale programs on the 135,000 acre Baraga Area State Forest. Supervised two forest technicians. Received 1989 DNR District One award for overall excellence.

Michigan Department of Natural Resources, Park Ranger, Parks Division, various locations, 1973 to 1977, 1980 to 1984

Employed at several state parks with public contact and maintenance responsibilities.

Bureau of Land Management, Timber Marker, Couer d'Alene, Idaho, 1979

Activities included stand exam, timber cruising, habitat typing, and boundary delineation

Other Publications

- *Invasion of Eurasian Watermilfoil in Lakes of the Western Upper Peninsula, Michigan*. 2003. US Army Corps of Engineers Aquatic Plant Control Research Program Report ERDC/EL TR-03-10.
- *Field Guide: Hiawatha National Forest Ecosystem Types* (approximately 70% funded and completed). 2002. Hiawatha National Forest, Escanaba, MI
- *Field Guide to Traditionally Used Plants of the Keweenaw Bay Indian Community*. 2002. Keweenaw Bay Indian Community, Baraga, MI.
- *Botrychium Conservation Assessments* 2001. Separate conservation assessments for six different species of rare *Botrychium* ferns. These conservation assessments summarize the "State of the Art" knowledge of species to allow the development of rehabilitation and conservation plans.
- *Evaluation of National Wetland Inventory Maps in a Heavily Forested Region in the Upper Great Lakes*. 2000. Wetlands. 20:581-587
- *Relationships Between Groundwater Characteristics, Vegetation, and Peatland Type in the Hiawatha National Forest, Michigan* 1997. Northern Forested Wetlands: Ecology and Management, Chapter 7. Ed C.C. Trettin et al. Lewis Publishers, Boca Raton, FL